TRADOC PAMPHLET 71-9, REQUIREMENTS DETERMINATION, 7 NOVEMBER 1997

Proponent

The proponent for this document is the U.S. Army Training and Doctrine Command, Deputy Chief of Staff for Combat Developments.

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Definition

DTLOMS (Doctrine, Training, Leadership Development, Organizational Design, Materiel, and Soldier) - An investment strategy by which operational capabilities are analyzed. The goal of this analysis is to determine the most effective, timely and least costly means to achieve the future operational capability. The DTLOMS domains are an ordered progression from the least expensive change (Doctrine) to the most expensive change (Soldier) that is needed to produce an operational capability. For example, insights pertaining to a future operational capability are first analyzed from a doctrine perspective. If doctrinal changes (from Field Manual to Tactics, Techniques, and Procedures) can provide the desired operational capability, the TRADOC Commander approves them and forwards them to the operational force. If doctrine insights do not produce the desired operational capability, the same steps are used to analyze training, leader development, organizational design and material. With cost as an independent variable, the least costly and most rapid changes are considered first. Changes made toward the end of the DTLOMS domains produce a reverse "cascade" effect by generating changes in the preceding domains.

Synopsis

This guide describes the processes for determining, documenting, and approving warfighting requirements in the domains of doctrine, training, leader development, organization, materiel, and soldier (DTLOMS). It is designed to assist and guide Army personnel and organizations, inside and outside Training and Doctrine Command (TRADOC), and to accomplish these functions in accordance with Chief of Staff, U.S. Army (CSA) direction and guidance. The direction and guidance emanate from TRADOC Black Book Number 3, "Requirements Determination" March 1996, and Army Regulation (AR) 71-9, Materiel Requirements, 30 April 1997. The CSA appointed Commanding General (CG), TRADOC as the Army's approval authority for all warfighting requirements. The CSA also directed all Army Commanders and staff to follow TRADOC-established procedures to determine and document requirements for any new need that may affect warfighting.

This pamphlet provides guidance for the following processes: concept development and approval; Future Operational Capabilities (FOCs) determination, approval, prioritization, and dissemination; DTLOMS solutions for FOCs. It provides guidance for requirements documents and TRADOC approval for each DTLOMS domain. Additionally, it provides the detailed process guide for materiel requirements documents. In the materiel requirements domain, the guide reflects significant changes in Department of Defense (DoD) 5000 series, AR 70-1 and AR 71-9. There is now a single process for documenting requirements (and for acquisition) for weapons, defense equipment, and information technology. Operational innovations, such as split-based operations and expanded use of information technology to digitize the force, improve command and control, and improve information operations, are blurring the previous distinctions.

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This pamphlet implements the new way of determining requirements described in TRADOC Black Book Number 3, Requirements Determination, and AR 71-9. The pamphlet details the process Army personnel should follow in all DTLOMS domains in TRADOC, other major and separate Army commands, and Headquarters, Department of the Army (HQDA) to determine, document, and process concepts, future operational capabilities, and DTLOMS requirements. The pamphlet defines processes to obtain CG, TRADOC's approval of warfighting requirements for all DTLOMS domains, whether originated within TRADOC or by other Army organizations. This pamphlet also identifies processes for TRADOC and MACOM approval of requirements for non-warfighting information technology. It also describes recent changes in the Army's materiel requirements documentation processes. These changes respond to revisions in DoD 5000 series, AR 71-9, Federal Acquisition Regulation (FAR), and Chairman Joint Chiefs of Staff (CJCS) Memorandum of Procedure (MOP) 77.

The Army continually upgrades and changes the way it fights so it can maintain battlefield superiority over all potential adversaries and can achieve complementary capabilities with other services and nations. It determines requirements holistically, based on desired joint and Army capabilities versus known deficiencies. Warfighting concepts focused on the future and experiments in the battle labs provide insights to determine viable requirements.

The TRADOC Commander develops the Army's future warfighting vision. It is an abstract description of a desired goal as seen by a commander looking into the future. Influences by the national security and military strategies along with science and technology provide a frame of reference. A series of white papers designed to provoke thought and dissertation by the military, academia; industry and other futurists drive vision development. A sufficiently developed vision translates into an overarching concept, still abstract, but a much more detailed description of the desired goal.

An Integrated Concept Team (ICT) (see chapter 4) is formed at HQ TRADOC to develop the overarching warfighting concept (see chapter 5). The ICT has members from TRADOC, Army Materiel Command (AMC), other Army commands, HQDA, other military services, academia, industry, and others. The ICT takes advantage of the synergy of the group to translate the commander's vision into the next level of detail. Their work reflects direct linkage to the National Military Strategy (NMS), Defense Planning Guidance (DPG), the Joint Vision, the Army Plan and other documents. In this context, the overall warfighting concepts they develop become the primary guide for all other concept development activities in the Army.

Detailed operational, functional, and branch concepts (see chapter 5) augment the overarching concept. School commandants and other Army leaders use the ICT approach to develop the more detailed concepts that describe the full range of future capabilities needed by the Army to execute the overarching warfighting concept.

The FOCs are structured statements of operational capability required by the Army to achieve its goals as stated in approved concepts. They are identified in each individual concept and consolidated in TRADOC Pam 525-66 (see chapter 6). This document will be the control mechanism for requirements determination activities and will provide a cross-reference for all capabilities to ensure they support approved warfighting concepts. It will also help guide Army Science and Technology (S&T) activities as well as industry research and development initiatives (see chapter 7). A holistic appraisal of current and desired operational capabilities will produce a future capabilities strategy (see chapter 6). This strategy will form the basis for experiments, analyses, and other requirement's determination activities.

Warfighting experimentation (see chapter 8) and analysis (see chapter 9) are key to the requirements determination process. When properly planned and executed, warfighting experiments and analyses give the Army an unsurpassed means to understand future warfighting requirements. Progressive and iterative mixes of constructive, virtual and live experiments combined with operational experience and appropriate analyses yield insights to better define not only warfighting concepts but also requirements across the spectrum of doctrine, training, leader development, organizations, materiel, and soldiers (DTLOMS).

Requirements determination occurs in the order of doctrine, training, leader development, organization, soldiers, and materiel, based on the expense and timeliness to field a capability. This pamphlet identifies, in general terms, the procedures needed to develop requirements documents across the DTLOMS. It leads the reader to specific documentation that outlines the procedures for warfighting requirements determination in the DTLOMS domains (see chapter 10). The specific procedures for developing warfighting materiel requirements-including Mission Needs Statement (MNS) and Operational Requirements Document (ORD)-are contained in chapter 11. Special processes apply to model and simulation (M&S) requirements (see chapter 12). The new way of doing requirements business and changes in related Army processes such as Warfighter Rapid Acquisition Process (WRAP), information technology (IT), and Horizontal Requirements Integration (HRI) emphasis demand special consideration (see chapter 13). Table 1 lists the organization and functional role summary in the Requirements Determination process for the Army. Additionally, concept development, Science and Technology research, warfighting experimentation, and contemporary operational (CONOPS) issues provide DTLOMS insights. The insights describe different means to achieve future operational capabilities. Before translation into requirements, the insights must be integrated and analyzed by the concept proponent. Table 2 shows the process domains and the requirements documents that are developed once the concept has been validated.

What Does This Mean for Military Public Health?

We need to understand the Army Requirements Determination Process and provide appropriate input.

The following themes are common to other planning documents on our list:

- work closely with the research, development, and acquisition communities. assist the Army Medical Department (AMEDD) Center and School and other service schools in developing solutions to address lessons learned and doctrine, training, leader development, organization, materiel, and soldiers (DTLOMS) deficiencies to meet the challenges of Joint Vision 2010;
- be aware of the Future Operational Capabilities (FOCs) in TRADOC Pamphlet 525-66, Future Operational Capability, that require preventive medicine involvement or generate preventive medicine concerns. Integrated FOCs (applying to more than one TRADOC proponent) are listed in Chapter 2. Medical FOCs are listed in Chapter 4. The Medical FOC titles are:
  - ⇒ MD 97-001. Patient Evacuation,
  - ⇒ MD 97-002. Medical Command, Control, Communication, Computers and Intelligence (MC4I),
  - ⇒ MD 97-003. Patient Treatment and Area Support,
  - ⇒ MD 97-004. Combat Health Support in a NBC Environment,
  - ⇒ MD 97-005. Far-Forward Surgical Support,
  - ⇒ MD 97-006. Hospitalization,
  - ⇒ MD 97-007. Preventive Medicine,
  - ⇒ MD 97-008. Combat Health Logistics System (CHLS) and Blood Management,
  - ⇒ MD 97-009. Combat Stress Control (CSC),
  - ⇒ MD 97-010. Medical Laboratory Support,
  - ⇒ MD 97-011. Dental Service,
  - ⇒ MD 97-012. Veterinary Services: Capability to Provide Veterinary Support for Force XXI, and

⇒ MD 97-013. Mobility/Deployability.

- address how preventive medicine will become involved in development of FOCs;
- ensure that soldier considerations are emphasized and maintained as a high priority in system design; and that system operation, deployment/employment, and maintenance requirements are matched with soldier capabilities, training, and availability. With MANPRINT, Army systems will become increasingly user-centered, reliable, and maintainable, leading to significant reductions in life-cycle costs and increased mission effectiveness;
- integrate comprehensive, population-based functional and surveillance medical information systems such as: DMSS, DOHRS, DVIS, DEESS, HHA, MIDI, etc. into a system of systems; and
- optimize the use of technology to obtain, evaluate, and disseminate preventive medicine information.

Table 1. Organizations and Functional Roles Summary in the Requirements Determination Process

Organizations	Major Functions						
	Concept Development	Future Operational Capabilities (FOCs)	Science & Technology (S&T) Research	Warfighting Experiments	Contemporary Operational(CONOPs) Issues	Insights to Requirements	Warfighting Requirements
Joint Requirements Oversight Council (JROC)							Validate: -Acquisition Category I (ACAT I) Mission Needs Statement (MNS) -Command, Control, Communications, Computers, & Intelligence (C4I) Certification - ACAT ID Operational Requirements Document (ORD) -Key Performance Parameter (KPP) for ACAT ID
Headquarters Department of the Army (DA)			Resource	Resource	-Resource -Task Organization, Materiel, and Soldier (O, M, S) Issues	Participate in ICT	-Resource and Task O, M, and S Issues -Participate in ICT -Chief Information Officer (CIO) Validation
Headquarters, Training and Doctrine Command (TRADOC)	-Produce Operational Architecture (OA) Concept -Lead Integrated Concept Team (ICT) -Approve Operational/Functional/Branch (O/F/B) Concepts	Produce TRADOC Pam 525-66 and Future Capabilities Strategy	Prioritize S&T Initiatives with Army Materiel Command (AMC)	-Resource -Advanced Warfighting Experiments (AWE) Concept	-Support DA -Resource Doctrine, Training, and Leadership Development (D, T, L) Issues	Participate in ICT	-Integrate All -Approve All -Resource D, T, and L Issues
Other Army Commands with Combat, Training, and Doctrine Development	-Produce O/F/B Concepts -Lead ICT	Produce Future Operational Capabilities (FOCs)	Evaluate S&T Products	-Plan, Conduct, and Report -Support AWEs	-Support DA -Advise Field Commanders	-Integrate & Analyze -Lead ICT -Conduct Studies and Analyses	-Define, Document, and Defend -Lead ICT
School Commandants & CASCOM (with Battle Labs)	Produce O/F/B Concepts -Lead ICT	Produce FOCs	Evaluate S&T Products	Plan, Conduct, and Report	-Support HQ TRADOC -Deliver D, T, L, O, &S -Advise Field Commanders	-Integrate & Analyze -Lead ICT -Conduct Studies and Analyses	-Define, Document, and Defend -Lead ICT

TRADOC Analysis Center (TRAC)		Analytic Support		-Lead Analytic Planning and Analysis for AWEs -Support Other		Provide Analysis Support	-Provide Analysis Support -Conduct Analysis of Alternatives
Field Commanders				Support	Define and Document	Participate in ICT	

Table 2. DTLOMS Domains and Their Associated Requirements Documents

Domain	Requirements Document(s)
Doctrine	Program Directive (PD)
Training	Individual Training Plan (ITP) Course Administrative Data (CAD) Program of Instruction (POI)
Leader Development	Memorandum
Organizations	Unit Reference Sheet (URS) Table of Organization and Equipment (TOE)
Materiel	Mission Need Statement (MNS) Operational Requirement Document (ORD)
Soldier	Memorandum